REMARKS

Claims 33-82 are pending in the present application. Claims 33, 34, 54, 73, 75 and 79 have been amended, and Claims 41-53, 62-72 and 79-82 have been withdrawn from consideration. Claims 33-40, 54-61, and 73-78 remain present for consideration upon entry of the present Amendment.

Support for the Amendments to Claims 33, 34, 54, 73, 75 and 79 can be found in the Specification at least on Page 16, lines 11-12 and in the claims as filed.

The Specification has been amended to correct certain typographical errors.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims is respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 112, First Paragraph

Claims 33-40, 54-61 and 73-78 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicants respectfully traverse this rejection.

In making the rejection, the Examiner points out that the SEQ ID NOs for the EDG genes were not explicitly included in the instant specification. The Examiner quotes MPEP 608.01(p) and states that the EDG gene sequences are "essential material" and cannot be added by incorporation by reference of, for example, the Lee reference (Lee, et al. Cell 99, 301-312, 199) which is a non-patent publication (Paper 22, Pages 4-5). Further, the Examiner quotes MPEP 2163 relating to analysis of the claimed invention at the time the invention was made in view of the teachings of the specification and the level of skill in the art at the time the invention was made. Regarding the level of skill in the art at the time of invention, the Examiner states "One of skill in the art would not have known what the target

gene sequences constituting "EDG1" or "EDG3" were from the disclosure of the gene name alone" (Paper 22, Page 6). Applicants strongly disagree with this conclusion.

Applicants have submitted DNA sequence listing for the EDG-1 and EDG-3 genes. Applicants maintain that this is not new matter because, as is clearly described in the background section of the instant Specification, the EDG-1, EDG-3 gene sequences and other EDG genes were known in the art (see Page 3, lines 12-19). The EDG-1 and EDG-3 gene sequences had been used in a variety of prior art experiments described on Page 3, line 20 to Page 4, line 12. Applicants submit that because the EDG-1 and EDG-3 genes were known in the art, one of ordinary skill in the molecular biology arts would know what the target sequences were based on the name of the gene. It is well within the skill of the artisan to obtain the nucleotide sequence from the name of a gene and the species of the organism, using a public database such as the NCBI database. In doing such a search using human EDG-1 as a keyword, one of skill in the art would readily obtain accession number NM_001400 as the Applicants did in preparing their response of May 14, 2002. Similarly, searching EDG-3 would result in accession number NM_005226. In MPEP 2163, it is stated that "What is conventional or well known to one of ordinary skill in the art need not be disclosed in detail" (2100-162). The question is whether the disclosure is sufficient to enable those skilled in the art to practice the claimed invention, hence the specification need not disclose what is well known in the art. *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 730 F.2d at 1463, 221 USPQ at 489.

The EDG-1 gene sequence was published by Hla and Maciag in the Journal of Biological Chemistry **265**, 9308-9313 (1990). Other references for the EDG-1 gene sequence include An et al., FEBS Letters **417**, 279-282 (1987) and Lee et al., Science **279**, 1552-1555 (1998). All three references are cited in Accession number NM_001400. Applicants submit that based on the foregoing references, the EDG-1 gene sequence was well known in the art at the time of the invention.

The EDG-3 gene sequence was published in Yamaguchi et al. in Biochem. Biophys. Res. Commun. **227**, 608-614 (1996). Other references disclosing the EDG-3 gene sequence

include An et al., FEBS Letters **417**, 279-282 (1987) and Ancellin and Hla, Journal of Biolgical Chemistry **274**, 18997-19002 (1999). All three references are cited in Accession number NM_005226. Applicants submit that based on the foregoing references, the EDG-3 gene sequence was well known in the art at the time of the invention.

Applicants submit that the EDG-1 and EDG-3 sequences were well known to those skilled in the art at the time the invention was made. Based on the names of the genes alone, one of ordinary skill in the art would know which DNA sequences were being referred to. The Specification now contains the DNA sequence listings for the EDG-1 and EDG-3 genes and thus contains sufficient disclosure to enable one of ordinary skill in the art to practice the claimed invention as is required under 35 U.S.C. § 112.

For at least the foregoing reasons, reconsideration and withdrawal of the rejections under 35 U.S.C. § 112 are requested.

Allowable Subject Matter

Applicants wish to thank the Examiner for pointing out the patentability of claims directed to SEQ ID NOs:1, 2 and 5 if such claims use "is" or "consisting of" language. Given the foregoing arguments, Applicants elect to not amend the claims as suggested at this time.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

A marked-up version of the Paragraph on Page 16, lines 13-22 follows.

--A series of 18-mer phosphothioate oligonucleotides (PTO) were synthesized as potential antisense blocking agents to inhibit the expression of EDG-1 (SEQ ID NO:9) and EDG-3 (SEQ ID NO:10) receptors (Figure 12). The PTOs are designed to bind to the translational initiation site on the mRNA of the EDG-1, -3, and -5 receptors. Sequences represented by SEQ ID NO:3and SEQ ID NO:6 are the sense sequences for EDG-1 and EDG-3, respectively. Sequences represented by SEQ ID NO: 1 and SEQ ID NO:2 are antisense sequences for EDG-1, wherein the start points differ by three bases. The sequence represented by SEQ ID NO:5 is an antisense sequence for EDG-3. The sequence represented by SEQ ID NO:8 is an antisense sequence for EDG-5. Sequences represented by SEQ ID NO:4 and SEQ ID NO:7 are the "scramble" control sequences for EDG-1 and EDG-3, respectively.--

Marked-up version of Claims 33, 34, 54, 73, 75 and 79 follow:

33. (TwiceAmended/Marked-Up) An antisense oligonucleotide, wherein the antisense oligonucleotide inhibits the expression of a nucleic acid molecule encoding a human EDG-1 receptor and wherein the antisense oligonucleotide includes the translational initiation site of the nucleic acid molecule encoding the human EDG-1 receptor.

34. (Amended/Marked-Up) The antisense oligonucleotide of claim 33 wherein the antisense oligonucleotide hybridizes to thea nucleic acid molecule encoding an EDG-1 receptor.

54. (Thrice Amended/Marked-Up) An antisense oligonucleotide, wherein the antisense oligonucleotide inhibits the expression of a nucleic acid molecule encoding a human EDG-3 receptor and wherein the antisense oligonucleotide includes the translational initiation site of the nucleic acid molecule encoding the human EDG-3 receptor.

73. (Twice Amended/Marked-Up) An antisense oligonucleotide, wherein the antisense oligonucleotide inhibits the expression of a nucleic acid molecule encoding a human EDG-1 or EDG-3 receptor and wherein the antisense oligonucleotide includes the translational initiation site of the nucleic acid molecule encoding the human EDG-1 or EDG-3 receptor.

75. (Twice Amended/Marked-Up) The antisense oligonucleotide of claim 73 comprising SEQ ID NO:5.

79. (Amended/Marked-Up) A method of affecting intracellular signaling between cells, comprising contacting the cells with an antisense oligonucleotide in an amount effective to inhibit the expression of a nucleic acid molecule encoding ~~an~~the ~~or~~ EDG-1 or EDG-3 receptor.